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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,862	06/21/2006	Shuntaro Machida	ASAM.0205	4122

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EXAMINER

WILSON, ALLAN R

ART UNIT	PAPER NUMBER
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2815

MAIL DATE	DELIVERY MODE
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09/29/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,862	Applicant(s) MACHIDA ET AL.	
	Examiner ALLAN R. WILSON	Art Unit 2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 01/46664 A2 to Aigner et al. (of record, hereinafter “Aigner”). Aigner illustrates in at least figures 8A-10B with the associated text:

Regarding claim 1, Aigner illustrates in FIGs. 8A, 8B, 10A and 10B a device having:

a first wafer 1 having a first area and a second area opposed to each other with a first scribe area 20 in-between, wherein a first mechanical element 17 and a first pad 9 are formed in said first area and a second mechanical element (unnumbered - same as 17 on right) and a second pad (unnumbered - same as 9, just to right of 9) are formed in said second area, and

a second wafer 2 which seals said first mechanical element and said second mechanical element with a prescribed space 18 over each of said first mechanical element and said second mechanical element formed in said first wafer, wherein:

said second wafer is provided with a through-hole (5 and 19) having a first side and a second side opposed to said first side, for exposing said first pad and said second pad, and

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said through-hole is so positioned that said first pad is placed between said first side and said first scribe area and said second pad is placed between said second side and said first scribe area, and

wherein said first pad and said second pad are overlapped with said through-hole when viewed in a plan view (see annotated FIG. 10B below).

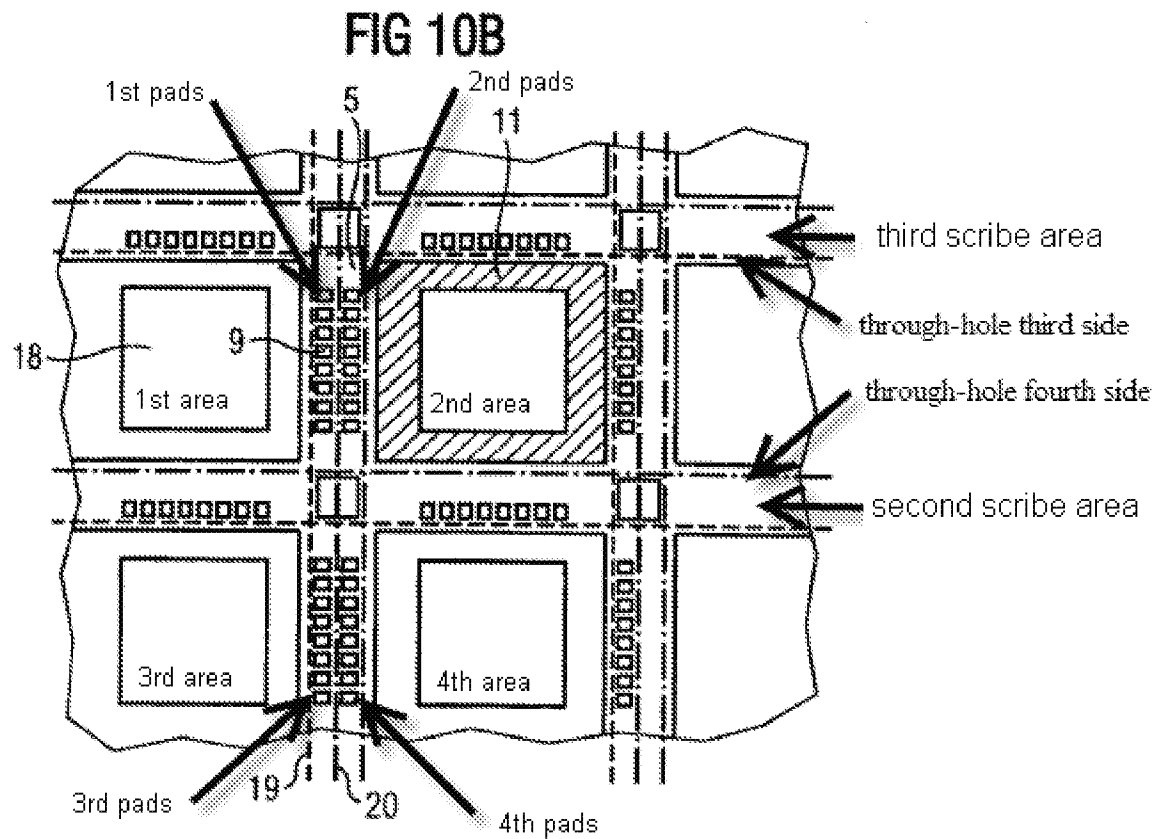
Regarding claim 2, Aigner illustrates in FIGs. 10A and 10B (see annotated FIG. 10B below) said first wafer has a second scribe area

said through-hole (5 and 19) has a third side crossing said first side and said second side and a fourth side opposed to said third side,

the fourth side of said through-hole is placed between said second scribe area, said first pad and said second pad, and

the third side of said through-hole is arranged to be placed between said third scribe area, said first pad and said second pad.

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Regarding claim 3, Aigner illustrates in FIGs. 10A and 10B (see annotated FIG. 10B above) said first wafer 1 has:

a second scribe area,

a third area opposed to said first area with said second scribe area in-between, and

a fourth area opposed to said second area with said second scribe area in-between and opposed to said third area with said first scribe area in-between, wherein:

a third mechanical element and a third pad are formed in said third area,

a fourth mechanical element and a fourth pad are formed in said fourth area,

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said through-hole (5 and 19) is so arranged as to expose said third pad and said fourth pad, and

said through-hole is so arranged as to place said third pad between said first side and said first scribe area and to place said fourth pad between said second side and said first scribe area.

Regarding claim 4, Aigner illustrates in FIGs. 10A and 10B (see annotated FIG. 10B above) said through-hole (5 and 19) has a third side crossing said first side and said second side and a fourth side opposed to said third side,

said through-hole is so arranged as to place said first and second pads between said third side and said second scribe area and to place said third and fourth pad between said fourth side and said second scribe area.

Regarding claims 8 and 10, Aigner illustrates in FIGs. 10A and 10B (see annotated FIG. 10B above) said first wafer further has second through fifth scribe areas,

said first area is surrounded by said first (20), second, third and fourth (not shown - scribe area on opposed side of first scribe area 20) scribe areas, and

said second area is surrounded by said first, second, third and fifth (vertical scribe areas on right). Further regarding claim 10, said third area is surrounded by said first, second, fourth and sixth (not shown - scribe area on opposed side of second scribe area below areas 3 and 4) scribe areas, and said fourth area is surrounded by said first, second, fifth and sixth scribe areas.

Regarding claims 9 and 11, the machine translation of Aigner, page 7, discloses making chips 11 by cutting the scribe areas 20.

Response to Arguments

Applicant's arguments filed 9/14/2009 have been fully considered but they are not persuasive.

The argument on page 5 that “the second wafer provided with a through-hole (i.e., a through-hole bored in advance), the pads can be opened without having to cut through the second wafer” is not persuasive. First, Aigner is provide with a through-hole after the second wafer seals the mechanical elements. Second, the claimed “the second wafer provided with a through-hole” does not clearly disclose when the through-hole is formed. Third, the claims are device claims. Whether the through-hole is bored in advance or after the second wafer seals the mechanical elements is a product-by-process limitation. A “product by process” claim is directed to the product per se, no matter how actually made, MPEP 2113 “Product-by-Process Claims,” In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90; In re Marosi et al, 218 USPQ 289; and particularly In re Thorpe, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a “product by process” claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in “product by process” claims or not.

The argument that “the covering body 2 of Aigner is not provided with a through-hole for exposing the first pad and the second pad because, as admitted, Figs 8A through 10B of Aigner show that a through-hole is made after the covering body 2 is applied to the base body 1 as ‘cut 19 partially saws through the structure to remove material to make the through-hole’” is not

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persuasive. Aigner is provide with a through-hole after the second wafer seals the mechanical elements. Again, whether the through-hole is bored in advance or after the second wafer seals the mechanical elements is not considered. This would be a product-by-process claim (see above).

Any inquiry concerning this communication or earlier communications from an examiner should be directed to Primary Examiner Allan Wilson whose telephone number is 571-272-1738. Examiner Wilson can normally be reached 7:00-3:30 Monday-Friday (off first Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Allan R. Wilson/

Primary Examiner, Art Unit 2815